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FISH & RICHARDSON, P.C.
PO BOX 1022
MINNEAPOLIS, MN 55440-1022

EXAMINER
CHONG CRUZ, NADJA N

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PATDOCTC@fr.com

	Application No.	Applicant(s)
Office Action Summary	10/608,895	WITTING, THOMAS
	Examiner	Art Unit	
	NADJA CHONG CRUZ	3623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 April 2009*.

2a)☒ This action is **FINAL.**   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8 and 10-22* is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8 and 10-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☐ All   b)☐ Some * c)☐ None of:

   1.☐ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____ .

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
   Paper No(s)/Mail Date _____ .

4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____ .

DETAILED ACTION

1.   This is Final office action in reply to the response filed on 20 April 2009.

2.   Claims 1, 15 and 22 have been amended.

3.   Claims 1-8 and 10-22 are currently pending and have been examined.

4.   The rejections of claims 1-8 and 10-22 have been updated to reflect the amendments.

Response to Amendment

5.   Applicant's amendment necessitated the new ground(s) of rejection presented in this Office

action.

6.   The claim objection to claim 15 is withdrawn in light of Applicant's amendment.

7.   The rejection of claims 1-14 under 35 USC § 101 is withdrawn in light of Applicant's amendment.

Claim Rejections - 35 USC § 112

8.   The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

9.   Claims 1-22 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the

written description requirement. The claim(s) contains subject matter which was not described in

the specification in such a way as to reasonably convey to one skilled in the relevant art that the

inventor(s), at the time the application was filed, had possession of the claimed invention. As per

claims 1, 15 and 22 recites "a monetary outcome", "wherein the monetary outcome is predicted

on a customer-specific basis", are not supported by the original disclosure.

Response to Arguments

10.   Applicant's arguments received on 20 April 2009 have been fully considered but they are not

persuasive.

11.   Applicant argues that specifically the prior art of record, that (1) *Blume, Fisher, Samra, and Lin fail to disclose or suggest determining and/or predicting a monetary response value for an individual customer, and creating a target group for a subsequent campaign step based on individual response probabilities for customers from an earlier target group; (2) In fact, none of the references of record disclose or suggest the steps of (i) "determining, using [a] computer device, an individual response value for each of the customers in a first target group," (ii) using the response value and the response probability to "predict a monetary outcome of [a] first campaign step," or (iii) predicting a monetary outcome of performing also the second campaign step toward the second target group after the first campaign step, wherein the second target group is a subset of the first target group, and wherein the monetary outcome is predicted on a customer-specific basis."* (page 9, last paragraph).

12.   In response to argument (1). The Examiner respectfully disagrees. Please see the following passage of Blume for the step of "creating a target group for a subsequent campaign step based on individual response probabilities for customers from an earlier target group": Figure 14 which illustrates a flowchart for predicting a response rate for a consumer with regard to a particular offer (e.g., marketing campaigns), column 44 lines 58-67 and column 45 lines 3-5: which teaches that "the technique shown in FIG. 14 can be applied to predicting other types of market value associated with identifiable consumers" (e.g., second target group) which it is implicitly disclosed that using the same technique with "the consumers in the reference set" (e.g., first target group) "having known response rates to offers (or having other characteristics that are known to be related to or good predictors of response rates)" will determine a new target group (e.g., a second target group) with predictive number of response. Blume teaches that by selecting a second target group, this second target group will have good predictors of responses from a previous marketing campaign step, since "[t]he reference set typically includes consumers who have been presented with an offer and given a chance to respond" therefore a second target group is selected from previous predicted responses (e.g., response probabilities from the first target group) because "the available data provides some degree of predictive accuracy concerning the

likelihood of a positive response to an offer.". Further, in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., *determining and/or predicting a monetary response value for an individual customer*) is not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

13.   In response to argument (2). Examiner respectfully disagrees. Blume teaches (i) "determining, using [a] computer device, an individual response value for each of the customers in a first target group" in Figure 14, which it illustrates a flowchart for predicting a response rate for a consumer with regard to a particular offer (e.g., marketing campaigns step), column 7 lines 26-28, column 44 lines 62-67, column 45 lines 10-14: which teaches that "the consumers in the reference set having known response rates to offers (or having other characteristics that are known to be related to or good predictors of response rates). The reference set typically includes consumers who have been presented with an offer and given a chance to respond" (e.g., an individual response) where each customer (e.g., first target group of the marketing campaign) have a known response probability. Furthermore, Blume teaches that [o]nce the set of reference consumers has been established" it obtains "a consumer vector for each consumer in the reference set, as well as a value describing the known or predicted response rate relevant to the offer being analyzed" therefore if the response probability is not known Blume "employs nearest-neighbor techniques to predict responses to offers or other marketing-related value" (e.g., a first campaign step). Further, Blume teaches (ii) and (iii), please see the response to argument 1 for a second target group and column 7 lines 37-43, column 3 lines 35-41 and column 45, lines 39-44: that "[t]he response rate among the nearest neighbors is aggregated and used as a predictor of the likely response rate for the target consumer. Based on this score for a number of potential target consumers, the marketing effort can be targeted at those consumers most likely to respond favorably, thus improving the efficiency" (e.g., monetary outcome) "of the marketing campaign" wherein the efficiency of a marketing campaign reflects how much revenue a marketing campaign

generated. Furthermore, Blume teaches that "the system determines the ratio of those who responded positively to those who responded negatively (or did not respond at all).This ratio is the target consumer's score with respect to the offer (e.g., an outcome of first/second campaign step), "and may be provided as output **1406** by the system.". Further, Blume teaches that "[c]urrent spending data of an individual consumer or groups of consumers can then be applied to the predictive models to predict future spending of the consumers in each or the merchant cluster, and/or marketing success data with respect to nearest neighbors can be applied to predict likelihood of success in promoting particular products to particular customers" (e.g., a customer-specific basis). In addition, please see the updated rejection as necessitated by amendments.

Claim Rejections - 35 USC § 103

14.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

15.   Claims 1, 5-8, 15-19 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blume et al., (US 6,839,682 B1), hereinafter "Blume".

Claims 1 and 22:

Blume as shown discloses a method and a computer software product for performing customer-specific value predictions marketing campaigns, the method and the computer software product comprising:

- *at least a first campaign step directed to a first target group and a second campaign step directed to a second target group, wherein the second target group is a subset of the first target group and the campaign steps are to be performed consecutively* (column 44, lines 59-60, which teaches that the technique "can be applied to predicting other types of market value associated with identifiable consumers" and

column 45-46, lines 65-67 and 1-9, respectively, which Blume teaches that "the nearest-neighbor response rate may be fused with other data for more advanced analysis. For example, the aggregated response rate could be provided as an input to a second-level predictive model, along with other input data" where Blume teaches that after predicting a response rate (e.g., first campaign step), this response rate results are the input for a second-level predictive model (e.g., second campaign step), therefore "[t]he second-level predictive model could be trained on the input data, using techniques known in the art, in order to improve response prediction accuracy for target consumers. Thus, the second-level predictive model would learn relationships among aggregated response rates and other input data, in order to generate a second-level predicted response rate that yields improved results");

- *determining, using a computer device, an individual response probability for each of a plurality of customers in the first target group, regarding the/a first campaign step directed to the first target group of a marketing campaign, the customers being intended targets of the marketing campaign* (Figure 14 which it illustrates a flowchart for predicting a response rate for a consumer with regard to a particular offer (e.g., marketing campaigns step), column 7 lines 26-28, column 44 lines 62-67, column 45 lines 10-14: which teaches that "the consumers in the reference set having known response rates to offers (or having other characteristics that are known to be related to or good predictors of response rates). The reference set typically includes consumers who have been presented with an offer and given a chance to respond" (e.g., an individual response) where each customer (e.g., first target group of the marketing campaign) have a known response probability. Furthermore, Blume teaches that [o]nce the set of reference consumers has been established" it obtains "a consumer vector for each consumer in the reference set, as well as a value describing the known or predicted response rate relevant to the

offer being analyzed" therefore if the response probability is not known Blume "employs nearest-neighbor techniques to predict responses to offers or other marketing-related value" (e.g., a first campaign step));

- *determining, using the computer device, an individual response value for each of the customers in the first target group regarding the first campaign step that indicates a predicted value of a response to the first campaign step of the marketing campaign by the customer;* (column 7 lines 32-34 and column 45, lines 37-44: which teaches that "[e]ach consumer in the reference set has a vector and a value describing the known or predicted response rate" (e.g., an individual response) "relevant to the offer being analyzed." Blume teaches that each consumer (e.g., first target group) has a known or predicted response rate related to an offer (e.g., first campaign step). Furthermore, Blume teaches that "[t]he response rate among the nearest neighbors is aggregated **1405** and used as a predictor" (e.g., a predicted value) of the likely response rate for the target consumer. For example, for the consumers in the nearest-neighbor set, the system determines the ratio of those who responded positively to those who responded negatively (or did not respond at all)" (e.g., a response value). "[t]his ratio is the target consumer's score with respect to the offer, and may be provided as output **1406** by the system.");

- *and predicting, using the computer device, a monetary outcome of first campaign step of the marketing campaign using the response probability and the response value, wherein the monetary outcome is predicted on a customer-specific basis* (column 7 lines 37-43, column 3 lines 35-41 and column 45, lines 39-44: which teaches that "[t]he response rate among the nearest neighbors is aggregated and used as a predictor of the likely response rate for the target consumer. Based on this score for a number of potential target consumers, the marketing effort can be targeted at those consumers most likely to respond favorably, thus improving the efficiency" (e.g., monetary outcome) "of the marketing campaign" wherein the

efficiency of a marketing campaign reflects how much revenue a marketing

campaign generated. Furthermore, Blume teaches that "the system determines the

ratio of those who responded positively to those who responded negatively (or did

not respond at all).This ratio is the target consumer's score with respect to the offer

(e.g., an outcome of first campaign step), "and may be provided as output **1406** by

the system.". Further, Blume teaches that "[c]urrent spending data of an individual

consumer or groups of consumers can then be applied to the predictive models to

predict future spending of the consumers in each or the merchant cluster, and/or

marketing success data with respect to nearest neighbors can be applied to predict

likelihood of success in promoting particular products to particular customers" (e.g.,

a customer-specific basis));

- *using the individual response probabilities for the plurality of customers to predict,*
  using the computer device, a number of responses to be received if the first
  campaign step were performed toward the plurality of customers (Figure 13, which
  it illustrates a block diagram showing an example of response prediction (e.g.,
  number of predicted responses) using a predictive model (e.g., response
  probabilities), column 7, lines 26-34, and column 43 lines 27-60, which teaches that
  "[t]he predictive model may also be trained to predict spending at vendors,
  responses to particular offers" (e.g., first campaign step) "or other marketing
  schemes, and the like," where the "training set **1301** contains data describing
  customers who have previously been presented with the offer," (e.g., response
  probabilities) "including customers who accepted the offer (positive exemplars) and
  customers who rejected the offer (negative exemplars)." Furthermore, Blume
  "employs nearest-neighbor techniques to predict responses to offers or other
  marketing-related value" (e.g., a first campaign step) based on known response
  rates to offers which "[e]ach consumer in the reference set" (e.g., the individual
  response probability for the plurality of customers) "has a vector and a value

describing the known or predicted response rate relevant to the offer being analyzed.");

- *selecting, using the computer device, the second target group of customers from the first target group using the response probabilities, the second target group being substantially equal to the predicted number of responses* (Figure 14 which illustrates a flowchart for predicting a response rate for a consumer with regard to a particular offer (e.g., marketing campaigns), column 44 lines 58-67 and column 45 lines 3-5: which teaches that "the technique shown in FIG. 14 can be applied to predicting other types of market value associated with identifiable consumers" (e.g., second target group) which it is implicitly disclosed that using the same technique with "the consumers in the reference set" (e.g., first target group) "having known response rates to offers (or having other characteristics that are known to be related to or good predictors of response rates)" will determine a new target group (e.g., a second target group) with predictive number of response. Blume teaches that by selecting a second target group, this second target group will have good predictors of responses from a previous marketing campaign step, since "[t]he reference set typically includes consumers who have been presented with an offer and given a chance to respond" therefore a second target group is selected from previous predicted responses (e.g., response probabilities from the first target group) because "the available data provides some degree of predictive accuracy concerning the likelihood of a positive response to an offer.");

- *and predicting, using the computer device, a monetary outcome of performing also the second campaign step toward the target group after the first campaign step, wherein the second target group is a subset of the first target group, and wherein the monetary outcome is predicted on a customer-specific basis* (Figure 14 which illustrates a flowchart for predicting a response rate for a consumer with regard to a particular offer (e.g., marketing campaigns),column 7 lines 37-43, column 45-46

lines 67 and 1-9, respectively and column 44, lines 66-67, column 3 lines 35-41 and

column 45 lines 3-5, respectively: Blume teaches that the first campaign step is

performed before the second campaign step in order to predict an outcome, "[f]or

example, the aggregated response rate could be provided as an input to a second-

level predictive model," (e.g., second campaign step) "along with other input data

(such as demographic information, for example)" where Blume teaches that after

predicting a response rate (e.g., first campaign step), this response rate results are

the input for a second-level predictive model (e.g., second campaign step),

therefore, "[t]he second-level predictive model could be trained on the input data,

using techniques known in the art, in order to improve response prediction accuracy

for target consumers. Thus, the second-level predictive model would learn

relationships among aggregated response rates and other input data, in order to

generate a second-level predicted response rate that yields improved results.)".

Furthermore, Blume teaches that "[t]he response rate among the nearest neighbors

is aggregated and used as a predictor of the likely response rate for the target

consumer. Based on this score for a number of potential target consumers, the

marketing effort can be targeted at those consumers most likely to respond

favorably, thus improving the efficiency" (e.g., monetary outcome) "of the marketing

campaign" wherein the efficiency of a marketing campaign reflects how much

revenue a marketing campaign generated Further, Blume teaches that by selecting

a second target group, this second target group will have good predictors of

responses from a previous marketing campaign step, since "[t]he reference set"

(e.g., first target group) "typically includes consumers who have been presented

with an offer and given a chance to respond" therefore a second target group is a

subset from previous predicted responses (e.g., response probabilities from the first

target group) because "the available data provides some degree of predictive

accuracy concerning the likelihood of a positive response to an offer.". In addition,

Further, Blume teaches that "[c]urrent spending data of an individual consumer or groups of consumers can then be applied to the predictive models to predict future spending of the consumers in each or the merchant cluster, and/or marketing success data with respect to nearest neighbors can be applied to predict likelihood of success in promoting particular products to particular customers" (e.g., a customer-specific basis));

It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teaching and techniques of Blume to perform multiple campaign steps in order to predict an outcome from each campaign steps on multiple subsets of consumers because it "can be applied to predicting other types of market value associated with identifiable consumers" (Blume, column 44, lines 59-60). Further, Blume enables to predict responses based on "consumers" (e.g., first and second target group) "who have been presented with an offer and given a chance to respond" (Blume, column 44, lines 66-67) where "the nearest-neighbor response rate may be fused with other data for more advanced analysis. For example, the aggregated response rate could be provided as an input" (e.g., previous response from a campaign step) "to a second-level predictive model" (e.g., second campaign step), "along with other input data" where Blume teaches that after predicting a response rate (e.g., first campaign step), this response rate results are the input for a second-level predictive model (e.g., second campaign step), therefore "[t]he second-level predictive model could be trained on the input data, using techniques known in the art, in order to improve response prediction accuracy for target consumers. Thus, the second-level predictive model would learn relationships among aggregated response rates and other input data, in order to generate a second-level predicted response rate that yields improved results" (Blume, column 45-46, lines 65-67 and 1-9). Therefore, "[t]he response rate among the nearest neighbors is aggregated and used as a predictor of the likely response rate for the target consumer" (e.g., first and second target group). "[b]ased on this score for a number of potential target consumers, the marketing effort can be targeted at those consumers most likely to respond

favorably, thus improving the efficiency" (e.g., the outcome of success) "of the marketing

campaign" (Blume, column 7, lines 37-43).

Claim 15:

The limitations of claim 15 encompass substantially the same scope as claim 1. Accordingly,

those similar limitations are rejected in substantially the same manner as claim 1, as described

above. The following are the limitations of claim 15 that differ from claim 1.

Blume as shown discloses a system for predicting outcomes of marketing campaigns, the system

comprising:

- *program instructions tangibly embodied in a computer-readable medium and comprising a response prediction module that, when executed by a processor,* (see at least Figure 5: "Predictive Model Generation System");

- *and predicts, using the computer device, a number of responses to be received if the first campaign step were performed toward the plurality of customers* (Figure 13, which it illustrates a block diagram showing an example of response prediction (e.g., number of predicted responses) using a predictive model (e.g., response probabilities), column 7, lines 26-34, and column 43 lines 27-60, which teaches that "[t]he predictive model may also be trained to predict spending at vendors, responses to particular offers" (e.g., first campaign step) "or other marketing schemes, and the like," where the "training set **1301** contains data describing customers who have previously been presented with the offer," (e.g., response probabilities) "including customers who accepted the offer (positive exemplars) and customers who rejected the offer (negative exemplars)." Furthermore, Blume "employs nearest-neighbor techniques to predict responses to offers or other marketing-related value" (e.g., a first campaign step) based on known response rates to offers which "[e]ach consumer in the reference set" (e.g., plurality of customers) "has a vector and a value describing the known or predicted response rate relevant to the offer being analyzed.");

- *and program instructions tangibly embodied in a computer-readable medium and comprising an evaluation module that, when executed by a processor,* (see at least Figure 3 reference number 312 "Account/Segment Analysis" and Figure 14, reference number 1405 "Determine Response Rate for Nearest Neighbors and Figure 5: "Predictive Model Generation System");

- *and that predicts, using the computer device a monetary outcome of the marketing campaign using the response probability and the response value, wherein the monetary outcome is predicted on a customer-specific basis* (column 7 lines 37-43, column 3, lines 35-41 and column 45, lines 39-44: which teaches that "[t]he response rate among the nearest neighbors is aggregated and used as a predictor of the likely response rate for the target consumer. Based on this score for a number of potential target consumers, the marketing effort can be targeted at those consumers most likely to respond favorably, thus improving the efficiency" (e.g., monetary outcome) "of the marketing campaign" wherein the efficiency of a marketing campaign reflects how much revenue a marketing campaign generated. Furthermore, Blume teaches that "the system determines the ratio of those who responded positively to those who responded negatively (or did not respond at all).This ratio is the target consumer's score with respect to the offer (e.g., an outcome of first campaign step), "and may be provided as output **1406** by the system." Further, Blume teaches that "[c]urrent spending data of an individual consumer or groups of consumers can then be applied to the predictive models to predict future spending of the consumers in each or the merchant cluster, and/or marketing success data with respect to nearest neighbors can be applied to predict likelihood of success in promoting particular products to particular customers" (e.g., a customer-specific basis)););

- *and program instructions tangibly embodied in a computer-readable medium and comprising an assignment module that, when executed by a processor* (see at least

Figure 11A-11C and 12A-12C which they illustrates an example of segment vector adjustment and column 15, lines 19-24, which Blume teaches that "[i]f, in **1006,** the selected segment does correspond to the segment label that has been assigned to the merchant, zero or more segment vectors are adjusted **1010.** Either the segment vectors are left unchanged, or in an alternative embodiment, the assigned segment vector is moved closer to the merchant vector" where Blume teaches an assignment module);

Claims 5 and 16:

Blume discloses the limitations of Claims 1 and 15, as shown above. Furthermore, Blume discloses the following limitation as shown:

- *wherein the response value is determined using a purchase history of the customer* (see at least column 36, lines 31-34: "… the membership function computes the membership value for each segment as the predicted dollar amount that the account holder will purchase in the segment given previous purchase history.");

Claim 6:

Blume discloses the limitations of Claim 1, as shown above. Furthermore, Blume discloses the following limitation as shown:

- *wherein a purchase history is not available for a customer, further comprising identifying at least one similar customer for which a purchase history is available and using the at least one similar customer's purchase history to determine the response value* (see at least column 45, lines 5-9: "For example, if response history data is unavailable, the system might instead use a sample of consumers, and consider those who have purchased the product to have accepted the offer, and those who have not purchased the product to have rejected the offer.");

Claim 7:

Blume discloses the limitations of Claim 1, as shown above. Furthermore, Blume discloses the following limitation as shown:

- *wherein the marketing campaign is to be directed also at additional customers for which no response value is determined, further comprising using a default response value for the additional customers in predicting the outcome of the marketing campaign.* (see at least column 10, lines 29-34: "...useful statistics can be generated for the segment, such as average amount spent, spending rate, ratios of how much these consumers spend in the segment compared with the population average, response rates to offers, and so forth. This information enables merchants to finely target and promote their products to the appropriate consumers.");

Claims 8 and 19:

Blume discloses the limitations of Claims 7 and 18, as shown above and below. Furthermore, Blume discloses the following limitation as shown:

- *wherein the default response value is an average determined from responses to past marketing campaigns.* (see at least column 10, lines 29-32: "... useful statistics can be generated for the segment, such as average amount spent, spending rate, ratios of how much these consumers spend in the segment compared with the population average, response rates to offers, and so forth.");

Claim 17:

Blume discloses the limitations of Claim 15, as shown above. Furthermore, Blume discloses the following limitation as shown:

- *wherein a purchase history is not available for a customer, wherein the response value is determined using a purchase history of at least one similar customer* (see at least column 45, lines 5-9: "For example, if response history data is unavailable, the system might instead use a sample of consumers, and consider those who have purchased the product to have accepted the offer, and those who have not purchased the product to have rejected the offer.");

Claim 18:

Blume discloses the limitations of Claim 15, as shown above. Furthermore, Blume discloses the following limitation as shown:

- *wherein the marketing campaign is to be directed also at additional customers for which no response value is determined, and wherein the evaluation module* (see at least Fig. 3, reference number 312: "Account/Segment Analysis")

- *uses a default response value for the additional customers in predicting the outcome of the marketing campaign* (see at least column 10, lines 29-32: "... useful statistics can be generated for the segment, such as average amount spent, spending rate, ratios of how much these consumers spend in the segment compared with the population average, response rates to offers, and so forth. This information enables merchants to finely target and promote their products to the appropriate consumers");

16.   Claims 2-4 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blume et al., (US 6,839,682 B1), hereinafter "Blume" as applied to claims 1, 5-8, 15-19 and 22 as shown above, in view of Fisher et al (US 2002/0052775 A1), hereinafter "Fisher".

Claim 2:

Blume discloses the limitations of Claim 1, as shown above. Blume does not disclose the following limitation, but Fisher however, as shown, does:

- *wherein the predicted value is at least one selected from the group consisting of predicted revenue from the customer and predicted profit from the customer* (see at least page 4, ¶ 0038: "...to determine the plan's effectiveness and/or practicality. For example, the number of sales due to the marketing plan and the costs per impression can be electronically projected and modeled against the sales goals to determine optimal marketing effectiveness.");

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the Blume technique of predicting a value with the method of Fisher using

sales total value from a marketing plan, because in order to "predict future spending of an individual consumer" (see at least Blume, column 2, lines 45-46) for marketing campaigns, it is useful to know the customer "behavior based on actual historical spending patterns" (see at least Blume, column 2, lines 41-42) since this will "increase the marketing plan's effectiveness (percent of target audience reached)" and "speed the implementation of the marketing plan" (see at least Fisher, page 1, ¶ 0006).

Claim 3:

Blume discloses the limitations of Claim 1, as shown above. Blume does not disclose the following limitation, but Fisher however, as shown, does:

- *wherein the predicted value is a predicted response cost associated with the customer.* (see at least page 4, ¶ 0038: "...to determine the plan's effectiveness and/or practicality. For example, the number of sales due to the marketing plan and the costs per impression can be electronically projected and modeled against the sales goals to determine optimal marketing effectiveness.");

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the Blume technique of predicting a value with the method of Fisher using cost total value from a marketing plan, because in order to minimize marketing campaigns cost is necessary to know the customer "behavior based on actual historical spending patterns" (see at least Blume, column 2, lines 41-42) and "the interests of preferences of consumers" (see at least Blume, column 3, lines 56-57) since this "could reduce a marketing plan's cost per impression, increase the marketing plan's effectiveness (percent of target audience reached)" and "speed the implementation of the marketing plan" (see at least Fisher, page 1, ¶ 0006).

Claim 4:

Blume discloses the limitations of Claim 1, as shown above. Blume does not disclose the following limitation, but Fisher however, as shown, does:

- *wherein the predicted value is a predicted cost of contacting the customer in the marketing campaign* (see at least page 1, ¶ 0009: "...the software application of the

present invention can predict, for example, the percent of the target audience that will be reached, the overall costs of implementing the marketing plan, and/or the chance of implementing the marketing plan in a timely manner.");

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the Blume technique of predicting a value with the method of Fisher using a software application to predict the cost total value from a marketing plan, because in order to minimize marketing campaigns cost is necessary to know the customer "behavior based on actual historical spending patterns" (see at least Blume, column 2, lines 41-42) and "the interests of preferences of consumers" (see at least Blume, column 3, lines 56-57) since this "could reduce a marketing plan's cost per impression, increase the marketing plan's effectiveness (percent of target audience reached)" and "speed the implementation of the marketing plan" (see at least Fisher, page 1, ¶ 0006).

Claim 10:

Blume discloses the limitations of Claim 1, as shown above. Blume does not disclose the following limitation, but Fisher however, as shown, does:

- *wherein the target group initially is not equal to the predicted number of responses, further comprising adjusting the target group to be equal to the predicted number of responses.* (See at least page 4, ¶ 0039: "This embodiment also allows the degree of optimization to be adjusted to focus on particular levels of the marketing plan.");

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the Blume technique of predicting responses with the optimizer adjusting method of Fisher because "through a series of computerized, iterative steps using information about the defined goals of and the resources available to the marketing plan", (see at least Fisher page 4, ¶ 0039) will provide an optimal marketing campaign plan.

17.   Claim 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blume et al., (US 6,839,682 B1), hereinafter "Blume" as applied to claims 1, 5-8, 15-19 and 22 as shown above, in view of Samra et al (US 7,003,476 B1), hereinafter "Samra".

Claim 13:

Blume discloses the limitations of Claim 1, as shown above. Furthermore, Blume discloses the following limitation as shown:

- *wherein the response value is determined* (see at least column 7 lines 32-34: which teaches that "[e]ach consumer in the reference set has a vector and a value describing the known or predicted response rate relevant to the offer being analyzed.");

Blume does not disclose the following limitation, but Samra however, as shown, does:

- *for a particular marketing step in the marketing campaign.* (see at least Figure 9, reference number 104: which it illustrates "[u]sing data in a consumer database to determine a target group based on predicted customer profiles");

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the Blume technique of predicted a response value with the consumer database of Samra to determine a target group (i.e. a marketing step) because it will "optimized marketing campaign selections based on criteria selected from the consumer database" (see at least Samra, column 2, lines 61-63).

Claim 14:

Blume discloses the limitations of Claim 13, as shown above. Blume does not disclose the following limitation, but Samra however, as shown, does:

- *wherein the marketing step comprises contacting the customer by at least one selected from the group consisting of email,* (see at least column 6, lines 12-13: "…internet E-mail based campaigns…");

- *website advertisement, letter, telephone, fax and personal contact.* (see at least column 3, lines 8-10: "…create a marketing program to best use such marketing resources as mailing, telemarketing, and internet online by allocating resources based on consumer's real value.");

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the Blume technique of predicting an outcome of marketing campaign with the advertisement tools of Samra, which are well know in the advertisement industry because these advertisement tools will persuade, inform or motivate the process of purchasing, supporting or approving the marketing campaigns offers.

18.   Claims 11-12 and 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blume et al., (US 6,839,682 B1), hereinafter "Blume" as applied to claims 1, 5-8, 15-19 and 22 as shown above, in view of Lin et al (US 6,847,934 B1), hereinafter "Lin".

Claim 11:

Blume discloses the limitations of Claim 1, as shown above. Blume does not disclose the following limitation, but Lin however, as shown, does:

- *wherein at least one campaign step in the marketing campaign comprises a plurality of alternative campaign elements, further comprising assigning the customers to the campaign elements using an optimizing algorithm.* (see at least, column 2 and 3, lines 66-67 and 1, respectively: which Lin teaches "...the market selection optimization method generally comprises the steps of assigning product offers to consumers such that each consumer is assigned at least one product offer");

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the Blume/Samra technique of predicting responses from marketing campaigns with the Lin's marketing selection optimization method because it will provide "clients with the ability to effectively maximize profits in operations involving selling multiple products to multiple customers under the objective of maximizing the total profit to the client offering the products to customers." (See at least Lin, column 2, lines 55-59).

Claim 12:

The combination of Blume/Lin discloses the limitations of Claim 11, as shown above. Furthermore, Lin discloses the following limitation as shown:

- *wherein the optimizing algorithm assigns and reassigns the customers to the campaign elements while evaluating the predicted outcome of the marketing campaign, but does not reassign a customer to a campaign element to which the customer has previously been assigned.* (see at least column 2 and 3, lines 65-67 and 1-8, respectively: "...the market selection optimization method generally comprises the steps of assigning product offers to consumers such that each consumer is assigned at least one product offer; determining a difference in expected profitability associated with the assigned at least one product offer and a different product offer for each consumer; sorting the consumers according to the respective difference in expected profitabilities associated with the product offers; and reassigning the product offers to the sorted consumers in accordance with the respective difference in expected profitabilities.");

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the Blume/Samra technique of predicting responses from marketing campaigns with the Lin's marketing selection optimization method because it will provide "clients with the ability to effectively maximize profits in operations involving selling multiple products to multiple customers under the objective of maximizing the total profit to the client offering the products to customers." (See at least Lin, column 2, lines 55-59).

Claim 20:

Blume discloses the limitations of Claim 15, as shown above. Furthermore, Blume discloses the following limitation as shown:

- *the assignment module* (see at least Figure 11A-11C and 12A-12C which they illustrates an example of segment vector adjustment and column 15, lines 19-24, which Blume teaches that "[i]f, in **1006**, the selected segment does correspond to the segment label that has been assigned to the merchant, zero or more segment vectors are adjusted **1010** . Either the segment vectors are left unchanged, or in an

alternative embodiment, the assigned segment vector is moved closer to the merchant vector" where Blume teaches an assignment module);

Blume does not disclose the following limitation, but Lin however, as shown, does:

- *assigns the customers to the campaign elements using an optimizing algorithm.* (see at least, column 2 and 3, lines 66-67 and 1, respectively: "...the market selection optimization method generally comprises the steps of assigning product offers to consumers such that each consumer is assigned at least one product offer");

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the Blume technique of predicting responses from marketing campaigns with the Lin's marketing selection optimization method because it will provide "clients with the ability to effectively maximize profits in operations involving selling multiple products to multiple customers under the objective of maximizing the total profit to the client offering the products to customers." (See at least Lin, column 2, lines 55-59).

Claim 21:

The combination of Blume/Lin discloses the limitations of Claim 20, as shown above. Blume does not disclose the following limitation, but Lin however, as shown, does:

- *wherein the assignment module* (see at least Fig. 3, reference number 305);
- *assigns and reassigns the customers to the campaign elements while evaluating the predicted outcome of the marketing campaign, but does not reassign a customer to a campaign element to which the customer has previously been assigned.* (see at least column 2 and 3, lines 65-67 and 1-8, respectively: "...the market selection optimization method generally comprises the steps of assigning product offers to consumers such that each consumer is assigned at least one product offer; determining a difference in expected profitability associated with the assigned at least one product offer and a different product offer for each consumer; sorting the consumers according to the respective difference in expected

profitabilities associated with the product offers; and reassigning the product offers

to the sorted consumers in accordance with the respective difference in expected

profitabilities.");

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the

invention to combine the Blume technique of predicting responses from marketing campaigns

with the Lin's marketing selection optimization method because it will provide "clients with the

ability to effectively maximize profits in operations involving selling multiple products to multiple

customers under the objective of maximizing the total profit to the client offering the products to

customers." (See at least Lin, column 2, lines 55-59).

Conclusion

19.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Kahan, Using database marketing techniques to enhance your one-to-one marketing initiatives, The Journal of Consumer Marketing, 1998 disclose the use of RFM.

20.   Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry of a general nature or relating to the status of this application or concerning this communication or earlier communications from the Examiner should be directed to **Nadja Chong** whose telephone number is **571.270.3939.** The Examiner can normally be reached on Monday-Friday, 9:30am-5:00pm. If attempts to reach the examiner by telephone are unsuccessful, the Examiner's supervisor, **BETH BOSWELL** can be reached at **571.272.6737**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://portal.uspto.gov/external/portal/pair <http://pair-direct.uspto.gov >. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at **866.217.9197** (toll-free).

Any response to this action should be mailed to:

Commissioner of Patents

P.O. Box 1450

Alexandria, VA 22313-1450

or faxed to **571-273-8300**.

Hand delivered responses should be brought to the **United States Patent and Trademark Office Customer Service Window**:

Randolph Building

401 Dulany Street

Alexandria, VA 22314.

/Nadja Chong/ Examiner, Art Unit 3623

/Beth V. Boswell/

Supervisory Patent Examiner, Art Unit 3623